TABLE 1 - 12/28/11 FIELD AND QC SAMPLING SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE DIMOCK, SUSQUEHANNA COUNTY, PENNSYLVANIA Fort Meade Lab QC Sample Summary Total Field and Field Parameter/Method Matrix Bkgd QA/QC Analyses (no Field¹ including MS/MSD) Trip1 MS/MSD Dup Blanks drinking water Alkalinity (SM 2320B) (Total Hardness, HCO3, CO3) (2320B, 2340B) 60 0 6 0 0 5 0 71 drinking 0 0 0 71 Alcohols: Ethanol, methanol, 1-propanol, 1-butanol, 2-butanol (8015D) 60 water drinking water nions, Chloride, Bromide, Fluoride, Nitrate/Nitrite as N, Orthophosphorus as P, Sulfate as SO4 (300.0) 60 0 0 0 5 0 71 drinking Glycols incl. 2-Butoxyethanol (8321 Modified) 0 6 0 0 5 71 60 0 water drinking 0 6 0 0 5 0 71 Ethylene Glycol (8015M) 60 water drinking water 0 0 0 71 Metals: Al, Ca, Cr, Cu, Fe, Mg, Mn, Ni, Na, As, Se, Zn, Ti, Sr, Ba, Sn, Sb, Be, Cd, Co, Tl, U, V, K, Hg drinking 60 0 6 0 0 5 71 (200.8/245.1) water Filtered drinking Netals: Al, Ca, Cr, Cu, Fe, Mg, Mn, Ni, Na, As, Se, Zn, Ti, Sr, Ba, Sn, Sb, Be, Cd, Co, Tl, U, V, K, Hg 0 6 0 0 5 71 60 (200.8/245.1) drinking н (9040С) 0 0 71 60 6 0 water drinking 6 0 5 0 71 Phosphorus, Total (365.1) 60 0 0 water drinking Nitrate/Nitrite (353.2) 60 0 0 71 water drinking Semi-Volatiles (TCL plus TICs) (CLP Trace plus TICS) (OLC03.2) 71 0 6 0 60 water drinking -methylnapthalene (8270 or equivalent) 60 0 71 water drinking 1 per cooler 71 + Trip Blanks fo olatiles Incl. Acrylonitrile (TCL plus TICs) (CLP Trace - 0.5 ug/L QL) (OLC03.2) 6 5 3 water Coolers Oil & Grease (HEM) (1664A) drinking 71 Solids, Total Dissolved (TDS) (2540C) drinking 71 60 Solids, Total Suspended (TSS) (2540D) drinking Key: Bkgd = Background This QA sample will be an aqueous matrix. QA/QC = Quality assurance/quality control MS/MSD = Matrix Spike/Matrix Spike Duplicate CRQL = Contract-Required Quantitation limit. Dup = Duplicate Sample to be collected only if non-dedicated sampling equipment is used. Estimate based on 5 sampling days

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TABLE 1 - 12/28/11 FIELD AND QC SAMPLING SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE DIMOCK, SUSQUEHANNA COUNTY, PENNSYLVANIA EPA Region 9 Lab QC Sample Summary Total Field and Parameter/Method Matrix Bkgd Field¹ QA/QC Analyses (no Trip1 Rinsate Dup MS/MSD Samples Blanks including MS/MSD) issolved Gases, Methane, Ethane, & Ethene (RSK-175) 60 0 6 0 0 71 water DRO (8015M) drinking 71 drinking GRO (8015M) Key: Bkgd = Background MS/MSD = Matrix Spike/Matrix Spike Duplicate QA/QC = Quality assurance/quality control Sample to be collected only if non-dedicated sampling equipment is used. Estimate based on 5 sampling days Sr = Strontium CRQL = Contract-Required Quantitation limit. Dup = Duplicate TABLE 1 - 12/28/11 FIELD AND QC SAMPLING SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE DIMOCK, SUSQUEHANNA COUNTY, PENNSYLVANIA EPA Region 2 Lab QC Sample Summary 1 Rinsate¹¹² Parameter/Method Bkgd Field¹ MS/MSD QA/QC Analyses (not Samples This QA sample will be an aqueous matrix. Sample to be collected only if non-dedicated sampling equipment is used. Estimate based on 5 sampling days Bkgd = Background MS/MSD = Matrix Spike/Matrix Spike Duplicate CRQL = Contract-Required Quantitation limit. Dup = Duplicate QA/QC = Quality assurance/quality control Sr = Strontium

DIM0184720 DIM0184721

TABLE 1 - 12/28/11 FIFLD AND OC SAMPLING SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE DIMOCK, SUSQUEHANNA COUNTY, PENNSYLVANIA Isotech Lab Field Field¹ Blanks Parameter/Method Matrix Bkgd QA/QC Analyses (no Dup MS/MSD including MS/MSD) ¹³C and d²H of methane (isotech) 0 0 10 0 10 10 0 0 0 0 0 10 C of inorganic carbon (isotech) water drinking 10 table isotopes of water (O,H) (isotech) 10 0 0 0 0 0 0 water drinking omplete compositional analysis of headspace gas (isotech) iss. gases methane, ethane, ethene (isotech) drinking This QA sample will be an aqueous matrix. QA/QC = Quality assurance/quality control Sample to be collected only if non-dedicated sampling equipment is used. MS/MSD = Matrix Spike/Matrix Spike Duplicate CRQL = Contract-Required Quantitation limit. Sr = Strontium Estimate based on 5 sampling days Dup = Duplicate TABLE 1 - 12/28/11 FIELD AND OC SAMPLING SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE DIMOCK, SUSQUEHANNA COUNTY, PENNSYLVANIA NAREL Lab QC Sample Summary Field Parameter/Method Matrix Bkgd Trip1 Rinsate¹2 Field¹ QA/QC Analyses (no Dup MS/MSD Samples Gamma Spec (K-40, Ra-226, Ra-228, Th-232, Th-234, U-234, U-235, U-238) (901.1) drinking 60 a-226 (903.1) drinking 60 Ra-228 (904.0) drinking 60 ross Alpha/Beta (900.0) otes: drinking This QA sample will be an aqueous matrix. Sample to be collected only if non-dedicated sampling equipment is used. Estimate based on 5 sampling days Key: Bkgd = Background MS/MSD = Matrix Spike/Matrix Spike Duplicate CRQL = Contract-Required Quantitation limit. QA/QC = Quality assurance/quality control Dup = Duplicate TABLE 1 - 12/28/11 FIELD AND QC SAMPLING SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE DIMOCK, SUSQUEHANNA COUNTY, PENNSYLVANIA TechLaw Pace Lab QC Sample Summary Trip¹ Rinsate¹¹² Field¹ Rlanks Blanks Blanks Total Field and Parameter/Method Bkgd Dup MS/MSD including MS/MSD) drinking water Bacteria (total coliform, HPC) 60 6 0 71 drinking urbidity, Nephelometric (180.1) 60 6 0 0 71 water

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Bkgd = Background

Dup = Duplicate

MS/MSD = Matrix Spike/Matrix Spike Duplicate CRQL = Contract-Required Quantitation limit.

This QA sample will be an aqueous matrix.

Sample to be collected only if non-dedicated sampling equipment is used. Estimate based on 5 sampling days

QA/QC = Quality assurance/quality control

Sr = Strontium

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TABLE 2 - 12/28/11 SAMPLE ANALYTICAL REQUIREMENTS SUMMARY DIMOCK RESIDENTIAL GROUNDWATER SITE						
Analytical parameter and Method	DIMOCK, SUSC Matrix	Sample Preservation	NNSYLVANIA Holding Time	Sample Container(s)		Number
Alcohols: Ethanol, methanol, 1-propanol, 1-butanol, 2- butanol (8015D)	drinking water	lce, 6°C	7 days	Three 40-ml glass vials (Fill to capacity with no head space)	Procurement Sou Ft. Meade	3
Alkalinity (2320B, 2340B)	drinking water	lce, 6°C	14 days	One 500-ml HDPE	Ft. Meade	1
Anions: Chloride, Bromide, Fluoride, Nitrate/Nitrate as N, Orthophosphorus as P, Sulfate as SO4 (300.0)	drinking water	lce, 6°C	28 days	One 500-ml HDPE	Ft. Meade	1
Bacteria (total coliform, HPC)	drinking water	lce, 4°C (.008% Na2S2O3 if residual CI- present)	6 hours	125 ml Pre-sterilized polyproylene	Tier 4	1
d13C and d2H of methane (Isotech)	drinking water	Ice, 4°C, biocide pill in sample container	6 months	one 1-L poly/TBD*	Tier 4	1
d13C of inorganic carbon (Isotech)	drinking water	Ice, 4°C	6 months	one 1-L poly/TBD*	Tier 4	1
Complete compositional analysis of headspace gas (isotech)	drinking water	Ice, 4°C, biocide pill in sample container	6 months	one 1-L poly/TBD*	Tier 4	1
Diss. gases methane, ethane, ethene (isotech)	drinking water	Ice, 4°C, biocide pill in sample container pH<2 with HCl and cool	6 months	one 1-L poly/TBD*	Tier 4	1
Dissolved Gases, Methane, Ethane, & Ethene (RSK-175)	drinking water	with ice, 4°C	7 daγs	One 40-ml glass vial	Tier 4	1
Ethylene Glycol (8015M)	drinking water	ice, 4°C	7 days	Three 40-ml glass vials (Fill to capacity with no head space)	Tier 4	3
DRO (8105M)	drinking water	ice, 4°C	7 days extract; 40 days analysis	Two 1-Liter amber glass jars with teflon-lined lids		2
Suo (Brogui)	Gilliking water	pH<2 with HCl and cool	allalysis	Three 40-ml glass vials (Fill to capacity with no head	1	
GRO (8105M)	drinking water	with ice, 4°C	14 daγs	space)	1	3
Gamma Spec (K-40, Ra-226, Ra-228, Th-232, Th-234, U-235, U-238) (901.1)	drinking water	pH<2 with HNO3 and cool with ice, 4°C	6 months	One 1-Liter HDPE	Tier 4	1
Glycols incl. 2-Butoxyethanol (8316)	drinking water	Ice, 6°C	7 days	Three 40-ml glass vials (Fill to capacity with no head space)	Ft. Meade	3
		pH<2 with HNO3 and cool	•		1	
Gross Alpha/Beta (900.0) Metals: Al, Ca, Cr, Cu, Fe, Mg, Mn, Ni, Na, As, Se, Zn, Ti, Sr,	drinking water	with ice, 4°C pH<2 with HNO3 and cool	6 months	One 1-Liter HDPE	Tier 4	1
Ba, Sn, Sb, Be, Cd, Co, TI, U, V, K, Hg (200.8/245.1) Metals: Al, Ca, Cr, Cu, Fe, Mg, Mn, Ni, Na, As, Se, Zn, Ti, Sr,	drinking water	with ice, 4°C pH<2 with HNO3 and cool	6 months	One 1-Liter HDPE	Ft. Meade	1
Ba, Sn, Sb, Be, Cd, Co, Tl, U, V, K, Hg (200.8/245.1)	(filtered) drinking water	with ice, 4°C	6 months	One 1-Liter HDPE	Ft. Meade	1
Methylene Blue Active Substances (MBAS) (SM 5540C)	drinking water	lce, 4°C pH<2, H2SO4, and cool	48 hours	One 500-ml HDPE	Tier 4	1
Nitrate/Nitrite (Total N) (353.2)	drinking water	with ice, 4°C pH<2, H2SO4, and cool	7 days	Two 1-Liter amber glass jars with teflon-lined lids	Ft. Meade	2
Oil & Grease (HEM) (1664A)	drinking water	with ice, 4°C	28 days	One 1-Liter amber glass jars with teflon-lined lids	Tier 4	1
pH (9040C)	drinking water	Ice, 6°C	As soon as possible	One 250-ml HDPE	Ft. Meade	1
Phosphorus, Total (365.1)	drinking water	Ice, 6°C pH<2 with HNO3 and cool	28 days	One 400-ml HDPE	Ft. Meade	1
Ra-226 (903.1)	drinking water	with ice, 4°C pH<2 with HNO3 and cool	6 months	One 1-Liter HDPE	Tier 4	1
Ra-228 (904.0)	drinking water	with ice, 4°C	6 months	One 1-Liter HDPE	Tier 4	1
Semi-Volatiles (TCL plus TiCs) (OLC03.2)	drinking water	Ice, 6°C	7 days	Two 1-Liter amber glass jars with teflon-lined lids	Ft. Meade	2
Solids, Total Dissolved (TDS) (SM 2540C)	drinking water	Ice, 6°C	7 days	One 500-ml HDPE	Ft. Meade	1
Solids, Total Suspended (TSS) (SM 2540D)	drinking water	Ice, 6°C	7 days	One 500-ml HDPE	Ft. Meade	1
Stable isotopes of water (O,H) (Isotech)	drinking water	Ice, 4*C	6 months	one 1-L poly/TBD*	Tier 4	1
Turbidity, Nephelometric (180.1)	drinking water	ice, 4°C	48 hours	One 250-ml HDPE	Tier 4	1
2-Methoxyethanol (8015B)	drinking water	Ice, 6°C	7 days	Two 1-Liter amber glass jars with teflon-lined lids	Tier 4	2
1-methylnapthalene (8270 or equivalent)	drinking water	Ice, 6°C	7 days	Two 1-Liter amber glass jars with teflon-lined lids	Tier 4	2
Volatiles (TCL plus TICs) (CLP Trace - 0.5 ug/L QL) (OLC03.2) incl. Acrylonitrile	drinking water	2 drops of 1:1 HCl, pH<2, lce, 6°C	7 days	Six 40-ml glass vials w/Teflon lined cap (no head space)	Ft. Meade	6
Note: Analyses will be combined into sample b KEY:						50
°C = degrees Celsius C14 = Carbon 14 isotope	ml = milliliter Na2S2O3 = Sodium Th	iosulfate				
CLP = Contract Lab Program	pH = potential Hydrogen					
D13C = delta of carbon-13	QL = Quantitation Limit					
D2H = delta of deuterium	Sr = Strontium					
H2SO4 = Sulfuric Acid HDPE = High density polyethylene	TCL = Target Compound List TICs = Tentatively Identified Compounds				1	
INO3 = Nitric Acid ug/L = micrograms per liter						
PC = Heterotrophic Plate Count * all parameters to be analyzed by isotech can be combined into one 1-L poly bottle with septum lid					J	

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